

In the Specification

Please replace the paragraph on page 7, starting at line 19, with the following marked up paragraph:

-- One or more description schemes describing the multimedia content 103 are designated as "context nodes" within the content schema. ~~[[-]]~~The schema 105 may be a collection of separate context node schemas, each defining one of the context nodes in the multimedia content 103. The separate context node schemas enable the re-use of context node definitions to describe content of varying structures. The context node schema identifies the required and optional elements and attributes of the context node and the maximum number of its children elements and their attributes that may be present in an instance document.--

Please replace the paragraph on page 18, starting at line 1 with the following marked up paragraph:

-- If the method 425 determines if the schema order may not be preserved at block 426, it reads the order field 525 to determine if the attributes are ordered (block 432). If they are, the method 425 proceeds as if the schema order was preserved (looping through blocks 427 through 430). Otherwise, the number of optional attribute elements is obtained from number field 535 in the section header 531 to serve as a loop counter at block 433. The method 425 extracts the attribute identifier 537 from the each optional attributes field 533 at block 434. It uses the identifier to determine the characteristics of the optional attribute from the schema and extracts the corresponding value 529 from the field 533 at block 435. Once all the values for the optional attributes have been extracted, the method re-creates the optional attributes for the context node at block 431 and returns to the decode method 400.--

Please replace the paragraph on page 21, starting at line 1 with the following marked up paragraph:

-- Returning now to block 456, if the schema order may not be preserved, the method 455 determines whether or not the elements are in order using the order field 525 (block 4656). If they are in order, the section is encoded using format 570 and the method 455 proceeds as if schema order was preserved by obtaining the mask 575 at block 457 and looping through blocks 458 through 464. If the elements are not ordered, the section is

encoded according to format 580 and the value in the number field 585 is used as a counter for the loop starting at block 466 and ending at block 472. For each optional element, the identifier 587 is obtained from the optional elements field 583 (block 467) and used to determine the characteristics of the element in the schema. If the element cannot repeat (block 468), the method 455 gets the value 577 from the optional element field 583 at block 469. If there may be multiple occurrences of the element, for each occurrence (block 470) the value 577 is extracted from the optional elements field 583 at block 471. Once all occurrences for this particular element have been extracted, (i.e., the repeat field 579 is "0", (block 473)), the method 455 returns to block 467 to process the next element.--

Please replace the paragraph on page 24, starting at line 2 with the following marked up paragraph:

-- The identifiers for attributes and elements, and the addresses for context nodes can be assigned in various ways. In one embodiment, the identifiers and addresses are based on the relationships 600 between the elements within the content as illustrated in Figure 6. Context node A 601 has three optional attributes/elements represented as node B 603, node C 605, and node D 607. Each of the optional attributes/elements can be uniquely identified within its context node by a two-bit code word 613, i.e., 00, 01, and 10. In an alternate embodiment also shown in Figure 6, the frequency 615 with which a particular optional attribute/element appears in the context is used as the identifier. The frequency 615 can be determined through Huffman or arithmetic coding techniques that employ static/dynamic frequency tables.--